

# MASSACHUSETTS COLLEGE OF LIBERAL ARTS

## Sustainability Plan

**Date:** April 15, 2005  
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This Sustainability Plan has been reviewed and approved by Massachusetts College of Liberal Arts on April 22, 2005.

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*Signature of Agency Head or other Appropriate Designee*

### 1. **Agency Information, Impact Identification and Sustainability Team**

#### 1.1 **Agency Description and Scope**

Massachusetts College of Liberal Arts is a four-year, residential, public liberal arts college recently reaccruited by the New England Association of Schools and Universities, Inc. The college is one of nine in the state college system and is located in North Adams, Massachusetts.

**Roles & Responsibilities** - The college offers undergraduate and graduate programs as well as continuing education courses. MCLA is committed to providing a high quality, liberal arts educational experience.

The college's mission is to develop liberally educated citizens with the knowledge, perspectives, critical thinking skills, and values necessary to become active members of their communities and leaders in their chosen professions.

There are 1,400 enrolled undergraduate students and over 400 graduate students.

The following buildings and grounds occupy the 105-acre campus:

Residence Halls – Three resident areas house 65% of enrolled undergraduate students. They include: 1) Berkshire Towers (two tower buildings); 2) Hoosac Hall; and, 3) Flagg Townhouses (an apartment complex of eight buildings). Residence halls are in operation 24 hours a day, seven days a week.

Classrooms Buildings - Five academic buildings (Bowman Hall, Church Street Center, Mark Hopkins Hall, Murdock Hall, and Venable Hall) provide 33 classrooms, 29 labs, and two large lecture halls. Laboratory equipment includes microscopes, lasers, and telescopes, as well as optical and cell biology labs. Over 100 microcomputers are available to support academic projects and programs. The modern television studio is equipped with several digital, non linear edit systems.

Brewer Perkins - houses the Facilities Department and Shipping & Receiving.

Amsler Campus Center - features include the bookstore, convenience store, the radio station WJJW, campus kitchen facilities, dining area, indoor swimming pool, Athletics Department, fitness center, locker rooms, campus gym, and administrative offices. Freel Library offers resources that include over 170,000 volumes, subscriptions to over 2,000 journals, over 200,000 microform units, 4,000 videos, CDs and various multimedia packages. Venable Hall – Also has a gymnasium, 225-seat theatre, costume shop, scene shop, black box theatre and piano laboratory. Remaining buildings are the powerplant, Eldridge Hall (administrative offices), and Smith House (used for small functions and overnight guests). Athletic Fields Complex which is located about one mile from campus.

Five buildings on the perimeter of the campus are owned by the MCLA Foundation but maintained by the college; they house the college's health services, counseling center, admissions, faculty and administrative offices, and alumni/development offices.

Staff - The college employs 257 full-time and 69 part-time people and is the largest employer in North Adams.

## **1.2 Agency Impacts on the Environment and Human Health**

The major impact our recycling plan offers is to significantly reduce campus waste particularly paper waste from our campus. We also have the opportunity to education our student population on the importance of protecting the environment.

### **1.3 Agency Operational Costs**

Electric	\$353,718
Gas	\$549,584
Fuel Oil	\$ 20,990
Water/Sewer	\$ 81,774
Trash	\$ 64,874
Hazardous Waste	\$ 2,198

### **1.4 Agency Sustainability Team Members**

MCLA's Sustainability Team consists of the following individuals:

James A. Stakenas, PhD, Vice President, Administration & Finance  
Reynolds Thompson, Director of Facilities  
George Galli, Assistant Director of Facilities  
Shawn Derby, Coordinator of Energy & Utility Systems  
Marilyn Truskowski, Director, Human Resources  
Joseph Charon, Director of Public Safety

The team is made up of members most familiar with the college's operations and environmental impact; also, those who are able to determine actions the college should pursue, can develop a strategy to implement these actions, and can effectively

communicate sustainability goals to the college community. This group also has access to resources and staff to support their planning.

The team meets monthly to review campus operations.

## **2. Long-Term Goals/Vision**

### **2.1 Long-Term Goals**

MCLA is committed to being an environmentally friendly campus. To this end we will:

- continue to improve upon our recycling activities connected with day-to-day operations
- mature our hazardous materials program to appropriately manage those types of materials generated and used on campus and to find ways to reduce these waste streams
- as we renovate existing facilities and propose new facilities, we will develop spaces that are clean, efficient and environmentally friendly (green)

## **3. Short-term Actions and Priorities**

### **3.1 Priority and Areas Goals**

MCLA's greatest present need is to improve and determine ways to sustain efforts for recycling paper and other trash streams generated on a residential campus. Our largest waste stream is paper as paper products are used in all offices, the bookstore, food service and for classroom functions. Second to the paper waste stream are bottles and cans through our items consumed in our residential living program and food service. And, our third concern is water use and fuel use connected to heating the campus and transportation.

### **3.2 Agency Action Steps**

Presently, all paper waste streams are separated. Yet we have not developed or sustained educational programs that when successfully utilized would reduce the amount of paper waste that we have on campus. For example, our bookstore recycles cardboard boxes in the shipping and receiving of books, and the same is true for our food service operation. However, in North Adams, we are not always confident that in the collection of this paper waste streams that we are guaranteed that the paper is recycled as opposed to simply dumped.

Educational programs will be a priority to inform campus faculty, staff and students of ways that paper waste streams can be reduced.

Concerning bottles, cans and other waste products generated by the food service vendor, all #10 and #5 cans are opened at both ends, rinsed out and are separated for pick-up. All other disposable items are also put in separate receptacles for pick-up by

the waste removal company. Dispelled grease is recycled through Mass. Rendering on a weekly basis. This includes all greases and oils such as bacon grease, salad oil and cooking oils which are handled in the same fashion.

In spite of these efforts, currently no recycling is in place for empty bottles connected with soda and juice. This is the same situation in the residence halls and in the bookstore.

Concerning energy conservation on campus, energy used for heat is monitored and tracked daily to discern differences between the different heating fuels that we use including natural gas, #2 and #4 heating fuels and electricity. Over time we monitor this looking for discrepancies that may occur over time.

In 2000 MCLA contracted with Aegis Energy to provide energy efficient measures on campus. This project was bid and managed by the Division of Capital Asset Management. The improvements consisted of lighting replacements, heating controls, steam trap replacements, window replacements, and items to reduce water usage on campus. These improvements cost \$1.6 million with an anticipated payback in energy savings over ten years. Except for the energy program improvements we have not had any building system updates since the buildings were constructed.

Presently Murdock, the oldest campus building, is undergoing a major renovation. The building will receive a complete interior renovation including a new energy efficient heating system, new windows, air conditioning, and new finishes and system controls. Our feasibility study included as many energy efficient improvements as the budget would support. As new capital moneys are made available to campus we will include energy efficient ideas in the design. The Murdock Hall renovation meets the following sustainable design and energy efficient measures:

- All motors for the HVAC systems are premium efficiency.
- The controls system utilizes hot water reset and night setback to conserve energy.
- The pumps are provided with Variable Frequency Drives.
- The air handling unit fans are provided with Variable Frequency Drives.
- The relief exhaust fans are equipped with Variable Frequency Drives.
- A complete DDC controls system will be installed to monitor and control all HVAC systems.
- All lights utilize energy efficient lamps.
- All classrooms and offices have occupancy sensors to turn off lights when the room is empty.

Thinking ahead to reusable power sources, the MCLA campus has installed a small co-generation system in our Campus Center and is in the process of installing a small field of solar-voltaic panels to produce power and serve as an important laboratory for our new environmental science program.

#### **4.1 Integrating Environmental Impacts into Key Decision Points**

Our greatest waste stream is paper. Every office uses paper, every student uses paper, and every vendor uses paper. Our second greatest use is energy. Decision points to guide our sustainability must be found in these two areas.

## **4.2 Education and Training of Staff**

Training our campus population to reduce paper use, reduce paper waste and to recycle used paper will be coordinated through our facilities office. The Student Affairs Division will manage the education programs for recycling and energy savings for our resident student population. Student Affairs also meets with students and parents through orientation programs and leadership events.

Our Academic Affairs Division will promote faculty use of electronic communication for the delivery of classroom materials through our Learning Management System, reference to electronic materials for advising through our student information system, and encourage student work through email and on-line portfolios.

Our Administration and Finance Division is developing access to college policies and procedures on-line. We will also develop less paper intensive methods for purchasing goods and work orders for campus repairs. The facilities department will manage the bulk handling of paper waste materials and ensure that the waste removal process is pure regarding recycling.

## **4.3 Management Systems**

A well developed program places responsibility equally on all participants for recycling. Methods must be developed to ensure efficient movement of recycled materials to the appropriate pick up location, re-education of certain populations who do not recycle, and a communications protocol to notify our campus on the contributions our efforts make in saving resources through recycling and energy savings programs.

### **5.1 Agency tracking and Reporting Form**

Once campus processes for recycling are established and building energy efficiencies are obtained with renovations, the Sustainability Team will review data, processes and building plans for compliance.

### **5.2 Continuous Improvement**

Base line numbers for all waste to be determined immediately through assistance from our waste management contractor.

Similar data will be collected specifically for recycled materials.

Building programs to be audited monthly to determine efficacy of program processes and process redesign and/or re-education efforts to employ to correct problems with compliance or process.

Data to be re-examined once new systems have been in place for six months (Learning Management System, Student Information System, new work orders, and/or new purchase order process).